

Notice of Allowability

Application No.

09/901,329

Examiner

Aravind K. Moorthy

Applicant(s)

COLE ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/25/06.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

CHRISTOPHER REVAK
PRIMARY EXAMINER



DETAILED ACTION

1. This is in response to the communications filed on 25 October 2006.
2. Claims 1-19 are pending in the application.
3. Claims 1-19 have been allowed.

Response to Arguments

4. Applicant's arguments, see pages 2-4, filed 25 October 2006, with respect to claims 1-19 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Terminal Disclaimer

5. The terminal disclaimer filed on 25 October 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,985,519 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

6. Claims 1-19 are allowed.

The following is an examiner's statement of reasons for allowance:

Independent claims 1, 9, 15 and 19 set forth, among other things, receiving unencrypted control codes and encrypted user data over a communications channel and transmitting an upstream data signal over the communications channel based on the control codes.

The closest prior art to the current application was Petty U.S. Patent No. 5,784,633 (hereinafter Petty) in view of Schneier and Adachi U.S. Patent No. 5,953,324 (hereinafter Adachi). Petty discloses data terminal equipment (DTE) 14 and data circuit-terminating equipment (DTC) 16. Generally, the DTE 14 may be viewed as a mobile device or computer,

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while the DTC 16 may be seen as a cellular modem for communicating data over a wireless channel to a remote DTC-DTE pair. The description of Petty makes it clear that the DCE 16 performs the protocol procession functions. However, Petty is silent regarding the use of a software driver implementing a protocol layer. In Petty, the DTC 16 is a dedicated communications hardware unit. Such a dedicated unit would not employ a software driver as it is defined by those of ordinary skill in the art, because the processor is dedicated to the communication tasks, and is not a general purpose processor. Petty mentions that software executing on the main processor 28 of the DTE 14 may monitor and/or control the communication configuration of the DTE 16. However, as the protocol functions are implemented in the DTC 16, the general purpose processor 28 does not implement the protocol layer as set forth in the claimed subject matter. Petty teaches sending control information from the DTE 14 to its associated DTC 16 for configuring the communication channel to the remote DTC. Hence, the control codes are sent by the DTE to the DTC over an internal bus, not over the communication channel used to couple the local party to the remote party. As made clear in figure 1 of Petty, only user data is exchanged over the communications channel 22 using the cellular network 12. Moreover, the processing unit 46 of the DCE 16 receives the control codes, not the communications circuitry 52 (i.e. the physical layer hardware unit). The processing unit 46 configures the communications circuitry 52. Schneier fails to correct the deficiencies identified with respect to Petty. The combination of Adachi and Schneier also fails to teach or suggest the claimed subject matter. Adachi teaches a CDMA system. Adachi is silent regarding the nature of the control codes and the user data in terms of being encrypted and unencrypted. Adachi is silent because encryption is inherent in CDMA technology. In CDMA a plurality of

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users share the same frequency channel, but use a code division multiplexing scheme in which unique digital codes are assigned to each user. User data and control codes are both encoded using these unique digital codes, and therefore the user data and the control codes are encrypted. Hence, Adachi fails to teach or suggest the claimed subject matter, wherein encrypted user data and unencrypted control codes are received over a communication channel.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aravind K Moorthy *AM*
January 2, 2007

CHRISTOPHER REVAH
PRIMARY EXAMINER

